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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,799	11/13/2003	Enzo Ingriselli	C-3145	4203
<div><div>7590</div><div>06/27/2007</div><div>M. P. Williams 210 Main Street Manchester, CT 06040</div></div>				
<div>EXAMINER</div> <div>THOMPSON, MELISSA</div>				
<div><div>ART UNIT</div><div>PAPER NUMBER</div><div>1745</div></div>				
<div><div>MAIL DATE</div><div>DELIVERY MODE</div><div>06/27/2007</div><div>PAPER</div></div>				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/713,799	Applicant(s) INGRISELLI ET AL.	
	Examiner Melissa B. Thompson	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the amendment filed April 23, 2007:
 - a. Claims 1-3 are pending;
 - b. The previous objection to the abstract has been withdrawn in light of the amendment;
 - c. The previous claim objection stands as is;
 - d. The previous 112 rejection has been withdrawn in light of the amendment.

Claim Rejections - 35-USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Sugita et al. (U.S. Patent Number 6,613,470 B1).

Sugita et al. disclose a fuel cell system that comprises first and second fuel cell stacks that are arranged in parallel to one another (column 3, lines 46-49). A piping mechanism (28, in Figure 1) is used to supply and discharge a fuel gas, an oxygen-containing gas, and a cooling medium with respect to the first

and second fuel cell stacks (column 3, lines 56-59). Sugita et al. disclose what is interpreted to be a first manifold (24), a second manifold (26), and a turn manifold (behind the brackets 190) in Figure 1. As seen in Figure 16, brackets (204 and 202) cover the oxygen-containing gas inlets and fuel gas outlets (column 9, lines 6-8), acting as a seal to close off the manifolds. The piping mechanism connects the fuel gas outlets and the oxygen-containing gas inlets of each fuel cell stack (Figures 1 and 16). As seen in Figure 1, the tubes are contoured to fit the manifolds, this inherently shows that the tubing is a flexible material that has the ability to be shaped.

Response to Arguments

4. Applicant's arguments filed April 23, 2007 have been fully considered but they are not persuasive.

5. Applicants argue in the Declaration under CFR 1.132:

"Sugita discloses in Fig. 5 and at column 5, lines 18-27 (5:18-27) that the fuel flow fields have folded grooves within which turnaround occurs. There is no turn manifold in Sugita as required at lines 4 and 5 of claim 1."

"The bracket 190 in Sugita covers the fuel inlets (8:56-65). Therefore, the elements "behind the brackets 90" are "the fuel gas/discharge passage 138b which makes communication for the fuel gas inlet 122a

"(7:12-14), There is no turn manifold behind bracket 190."

6. In response to Applicants arguments and the Declaration under CFR 1.132, Examiner respectfully disagrees. Each exit manifold "turns" exhaust gas around. The

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exhaust gas goes from one direction around a corner of the end of the fuel cell stack and flows in the opposite direction, therefore having a "turn" manifold.

7. Applicants argue in the Declaration under CFR 1.132:

"Sugita discloses in Fig. 13 and 6:31-39, 7:11-18, and 8:21-22 that the fuel inlets 122a of stacks 12, 14 are adjacent, but the fuel outlets 122b are at opposite ends, remote from each other. The fuel supply plumbing and fuel exhaust plumbing therefore cannot connect to fuel inlets and fuel outlets on opposite faces of the same Inlet/outlet manifold as called for in lines 9-15 of claim 1."

8. In response to Applicants arguments and the Declaration under CFR 1.132, Examiner respectfully disagrees. Although the fuel outlets are at opposite ends, remote from each other, the fuel outlets are connected with a common pipe (21) that includes a single exhaust (212 in Figure 16).

9. Applicants argue in the Declaration under CFR 1.132:

"Sugita does not disclose an inlet/outlet manifold which is connectable to reactant gas supply plumbing AND to reactant gas exhaust, as called for in lines 9-15 of claim 1."

10. In response to Applicants arguments and the Declaration under CFR 1.132, Examiner respectfully disagrees. It is clear from, at least, Figure 16, that the inlet/outlet manifold is connectable to reactant gas supply (194 or 208) and to reactant gas exhaust (212 or 200).

11. Applicants argue in the Declaration under CFR 1.132:

"Sugita does not disclose a pair of seal plates to close off opposite sides of identical inlet/outlet manifolds on the respective stacks, as called for in lines 16-18 of claim 1."

"Sugita's 'brackets (204,202)', seen in Figs. 1 and 16, cannot 'close off' reactant flow, nor seal any manifolds, At 9:6-19, oxygen flows from tube 206 (Fig. 16) through brackets 204,206 to oxygen gas inlets 120a (Fig. 10), and fuel discharge passes from fuel outlets 122b through brackets 204,206 to fuel discharge tube 210 (Fig. 16)."

12. In response to Applicants arguments and the Declaration under CFR 1.132, Examiner respectfully disagrees. Although not clearly identified in the previous office action, a seal member (114) does exist in the fuel cell stack. The "to close off opposite sides of identical inlet/outlet manifolds" of claim 1 is intended use and therefore as long as a seal member is present in the stack, it meets the claims.

13. Applicants argue in the Declaration under CFR 1.132:

"In Sugita, items 24 and 26 are end plates shown at mid left of Fig. 2, left of Fig. 24, left of Fig. 10, left of Fig. 12, left (21) and right (26) of Figs, 15 and 16, left of Fig. 17, and described at 3:60; 6:26, 31,46; 7:8, 11, 14, 20, 23, 33, 47, 50; and 8:50 through 10:11."

14. In response to Applicants arguments and the Declaration under CFR 1.132, Examiner respectfully disagrees. The argument is unclear, but is interpreted to mean that what the Examiner described as manifolds (24 and 26) are in fact endplates.

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However, it is clear from the Figures that the general area where endplates (24 and 24) are located are the manifold ends of each stack. Although they are not clearly labeled as manifolds in the Figures, it is clear to one of ordinary skill in the art that these end portions, where the plumbing is located, is considered to be a manifold of the fuel cell stack.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa B. Thompson whose telephone number is (571) 272-2758. The examiner can normally be reached on Monday through Friday from 8am to 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MBT


PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER